

# **Final Environmental Assessment for the 1988 Revision of the Backcountry Management Plan for Grand Canyon National Park**

August, 1988

Grand Canyon National Park  
Arizona

National Park Service  
U.S. Department of the Interior

(this version of the Backcountry Management Plan was reformatted in April 2000)

GRAND CANYON NATIONAL PARK  
1988 BACKCOUNTRY MANAGEMENT PLAN

**Table of Contents**

I. PURPOSE AND NEED _____	3
II. ALTERNATIVES _____	3
A. No Action _____	3
B. Proposed Action _____	3
1. Backcountry Commercial Use Policy _____	3
2. Private Stock Use _____	4
3. Trail and Backcountry Road Standards _____	4
4. Plan Review and Update _____	5
5. Management Objectives _____	5
6. Backcountry Reservation and Permit System _____	5
7. Visitor Activity Restrictions _____	6
III. IMPACTS _____	7
A. No Action _____	7
B. Proposed Action _____	7
1. Backcountry Commercial Use Policy _____	8
2. Private Stock Use _____	9
3. Trail and Backcountry Road Standards _____	10
4. Plan Review and Update _____	11
5. Management Objectives _____	11
6. Backcountry Reservation and Permit System _____	12
7. Visitor Activity Restrictions _____	13
8. Potential Cumulative Impacts _____	13
IV. PERSONS AND AGENCIES CONSULTED _____	14

## **I. PURPOSE AND NEED**

In 1983, a Backcountry Management Plan along with an Environmental Assessment and Finding of No Significant Impact was approved for Grand Canyon National Park. In 1984, 1985, and 1986, the plan was reviewed by the public, resulting in minor revisions. Each of the individual minor revisions to the plan between 1983 and 1987 was considered a change or amendment to an approved plan which caused no impact or only minimal environmental impact. National Park Service policy states that there is no need for a separate environmental assessment for such changes. In 1987, the park identified a need for a more comprehensive revision of the plan. A public review process was initiated, which culminated in the 1988 revised Backcountry Management Plan and this document.

The purpose of this document is to assess the potential impacts of the 1988 revised Backcountry Management Plan (Proposed Action Alternative) compared to the 1983 Backcountry Management Plan (No Action Alternative) on the quality of the human and natural environment of Grand Canyon National Park.

## **II. ALTERNATIVES**

### **A. NO ACTION**

This alternative is the 1983 Backcountry Management Plan.

### **B. PROPOSED ACTION**

This alternative is the 1988 Backcountry Management Plan. Only changes from the 1983 plan which have a potential for impacts or which have generated substantial public comment during the public review process will be analyzed here. These areas include Backcountry Commercial Use Policy, Private Stock Use, Trail and Backcountry Road Standards, Plan Review and Update, Management Objectives, Backcountry Reservation and Permit System, and Visitor Activity Restrictions.

#### **1. Backcountry Commercial Use Policy**

1983 Plan: Verifiable clients were required before commercial operators could book reservations through the Backcountry Reservations System. Commercial operators with verifiable clients could compete for Backcountry Use Permits on the same basis as other users, except within the Cross-canyon Corridor. Overnight commercial use was excluded from the Cross-canyon Corridor from March 1 through September 30 each year unless such use was solely for access to or egress from non-Corridor Use Areas. The plan specifically required appropriate environmental clearance and approval of the Superintendent before expansion of any commercial operation in the park.

1985 Revision: Commercial users with verifiable clients were allowed to make reservations in the Corridor year-round.

Proposed Action: The park's guided hiking concessioner, Grand Canyon Trail Guides, will be permitted advance reservations without verifiable clients for not more than one guided hike for a party of eight people per week. These reservations may be made for any Use Area except the Corridor Use Area. Other commercial users must have verifiable clients before they can make backcountry reservations. All commercial users, including the concessioner, may compete on an equal basis with other users in all Use Areas when they have verifiable clients as in the 1985 plan revision. The plan does not specifically require environmental clearance and approval of the Superintendent before expansion of commercial operations in the park, because other regulations and policies already require such actions.

## **2. Private Stock Use**

1983 Plan: The Bright Angel, Plateau Point, River, and North and South Kaibab Trails were open to private stock use below the rims. The only inner canyon day trip open to private stock users which did not involve backtracking was to the Colorado River and back via the Bright Angel, River, and South Kaibab Trails. Private stock users were allowed to camp below the rim only at Phantom Ranch. No campsites on the rims were provided for private stock users. Permits were required for day use as well as overnight use of private stock in the park.

1986 Revision: Because the loop trip to the river and back described above was found to be extremely strenuous for riders and stock to complete in one day, the Tonto Trail between the Bright Angel and South Kaibab Trails was opened to day use only by private stock on a trial basis while impacts were evaluated. A baseline for a monitoring program to assess impacts of stock use on the Tonto Trail was established in the fall of 1987. A primitive campsite for private stock users was established on the North Rim near the North Kaibab Trailhead.

Proposed Action: In addition to the 1986 revision, primitive campsites for private stock use will be established on the South Rim at Rowe Well Road and at the abandoned Pasture Wash Ranger Station. Private stock users will also be allowed to camp below the rim at Cottonwood Campground, in a new campsite near the existing National Park Service corral. Permits will be required for all overnight use of private stock in the park, but not for any day use. Day users of the Tonto Trail must register at the Indian Garden Ranger Station.

## **3. Trail and Backcountry Road Standards**

1983 Plan: The plan called for development of trail classification and maintenance standards, and for classifying all trails and routes and maintaining all trails according to these standards. The Cross-canyon Corridor trails were to be maintained at frequent intervals to allow for safe stock and foot travel. Sections of the Hermit,

Grandview, Hance, South Bass, and Boucher Trails were to be restored and stabilized to prevent collapse and loss, to maintain their historic and aesthetic character, to minimize hazards to hiker travel, and to prevent environmental damage. Other trails and routes were to be maintained to the minimal amount necessary to reduce environmental damage. Backcountry roads were not addressed in this plan.

Proposed Action: Detailed Inner Canyon Trail Standards and Specifications are included in the 1988 plan. These provide the trail classification and maintenance standards called for in the 1983 Plan. Under these standards, rehabilitation or maintenance projects will only be undertaken to mitigate unacceptable resource impacts, not to alter the character of any trail or route. Trails and routes are classified according to trail type and maintenance level, and generally coincide with the management objectives for the Corridor, Threshold, Primitive, and Wild Management Zones defined in the Plan. Action plans specifying needed maintenance for each trail will be developed. Standard procedures for backcountry road maintenance will also be developed, and will be the minimum necessary for safety and resource protection in a manner that will not preclude wilderness designation at a later date. No new roads will be permitted in any Use Areas. All roads will be designated as either open or closed to vehicle and stock use with signs and maps. Four-wheel drive trails and roads not designated for use will be restored to natural conditions.

#### **4. Plan Review and Update**

1983 Plan: The plan was formally reviewed on an annual basis.

Proposed Action: The plan will be formally reviewed and updated on a three year basis. However, public comments will be encouraged on an ongoing basis. If a need is identified for significant changes to the plan prior to the three year review, a formal review may be initiated.

#### **5. Management Objectives**

1983 Plan: There were no specific objectives, only general statements of goals.

Proposed Action: Specific management objectives are included which describe the differences between each of the four backcountry management zones and describe in detail the limits of acceptable change for each management category. The management objectives will require monitoring programs to insure that objectives are met.

#### **6. Backcountry Reservation and Permit System**

1983 Plan: Permits could not be obtained after the regular hours of the Backcountry Reservations Office. No provision was made to mail permits to users. A single organization was limited to one group in a single campground or non-corridor use area each night, and to a maximum of three groups in the entire backcountry each night.

Nothing was stated in the plan about a maximum number of parties from a single organization. A particular limit was established for the number of groups (9 to 16 persons) and parties (1 to 8 persons) allowed to camp in each Use Area each night. Group permits were available only for groups until 9:00am on the day of hike. Only at that time could parties compete for unreserved group permits in Use Areas which may have been fully reserved for parties but not reserved at all for groups.

1985 Revision: Permits were made available for pick up at the Bright Angel Lodge Desk after normal working hours of the Backcountry Reservations Office. Mail out permits were made available for all trailheads except those from the South Bass to Tanner Trails on the South Rim, and from the Thunder River to the Old Bright Angel Trails on the North Rim. Certain experience requirements had to be met to participate in the mail out system. For any one organization, limits were set at one group or one party per night per campground or non-corridor use area, and three groups or six parties in the entire backcountry. Group permits were released for groups or parties on a first-come first-served basis seven days in advance of the day of the trip.

1986 Revision: The Nankoweap Trail was added to the mail out permit system.

Proposed Action: The after hours permit system will be eliminated. However, the mail out system will be expanded to include all South Rim trails except those from the Hermit to Grandview trailheads. The park is working with Bureau of Land Management offices in Utah to arrange for these offices to issue permits for a limited number of Use Areas north of the Colorado River. Organization limits will be the same as in the 1985 revision. Group permits will be released for groups or parties on a first-come first-served basis 30 days in advance of the day of the trip.

## **7. Visitor Activity Restrictions**

1983 Plan: Use Area boundaries were established as shown on the map enclosed with the plan. Use limits were established for each Use Area.

1985 Revision: New Use Areas were created in Marble Canyon by splitting existing Marble Canyon Use Areas at the Colorado River. These new Marble Canyon Use Areas were Eminence Break (from Saddle Canyon), Saltwater Wash (from Rider), Jackass (from Badger), and Shinumo Wash (from South Canyon). The use limits for the existing Marble Canyon Use Areas remained the same and were the same as the use limits for the new areas. The Lava Use Area was also created from part of The Dome Use Area. Minor revisions were also made to the boundaries of the Clear Creek, Cremation, Palisades, and Toroweap Valley Use Areas. The use limit for the Boucher Use Area was reduced as shown in Table I.

Proposed Action: No changes in Use Area boundaries are proposed from the 1985 revision. Use limit changes are shown in Table I below. Use Areas not shown in the table have not changed in use limits since 1983. The 1983-1987 Limits are from the

1983 plan unless a different date is shown. The use limit for Boucher is proposed to be the same as the limit it was changed to in 1985. Development of a new designated campsite for parties (1 to 8 people) is called for in the Hermit Use Area.

Table I: Changes in Use Area Limits, 1983-1988

Management Zone Use Area	1983-1987 Limits			Proposed 1988 Limits		
	Group		Party	Group		Party
Corridor						
Cottonwood	1	and	13	1	and	11
Threshold						
Hermit Creek	1	and	2	1	and	3
Lava	1	and	1 (1985)	Same as 1985		
Primitive						
Boucher	1	and	3	1	and	2(1985)
Eminence Break	1	and	1 (1985)	Same as 1985		
Jackass	1	and	1 (1985)	Same as 1985		
Saltwater Wash	1	and	1 (1985)	Same as 1985		
Shinumo Wash	1	and	1 (1985)	Same as 1985		
Swamp Ridge	1	and	4	1	and	3
Thompson Canyon	1	and	4	1	and	3
Walhalla Plateau	1	and	4	1	and	3
Wild						
Fossil	1	or	2	1	or	1
Vishnu	1	or	2	1	or	1

### III. IMPACTS

#### A. NO ACTION

This alternative is the 1983 Backcountry Management Plan. An Environmental Assessment and Finding of No Significant Impact were prepared for that plan. These documents were reviewed in preparation of this document, and were found to have adequately predicted and evaluated the effects of the 1983 plan. Therefore, those documents will serve to describe and evaluate impacts of the No Action Alternative for this document, and are thus incorporated by reference in this document.

Ecological and sociological research mandated by the 1983 plan were completed in 1986. In general, the research determined that the backcountry was in very good ecological condition and that the plan was also meeting most of the needs of visitors and management. Several recommendations for revising the plan were offered based upon the research, and have been considered in the 1988 revision process.

#### B. PROPOSED ACTION

Potential impacts will be discussed first individually in the same order as in the Alternatives section above. Then, potential cumulative impacts will be discussed.

### **1. Backcountry Commercial Use Policy**

Advertising hikes with specific departure dates is apparently a normal practice for businesses that provide outdoor guiding services. It apparently facilitates planning and utilization of such services by that segment of the public desiring commercial guided hikes, and facilitates planning and more efficient provision of services for the concessioner. Thus, it is expected that the concessioner and potential clients will find their access to the backcountry permit system improved by the proposed action. All of these factors may increase the number of clients for whom the concessioner is able to provide services and the profitability of the concession.

This change is expected to reduce the number of permits available to other persons and organizations. The concessioner is expected to reserve its full allotment of 52 permits as soon as the Backcountry Reservations Office opens on October 1. Mail in reservation requests by other parties will not have been received by the Backcountry Reservations Office at that time. The reduction in permit availability is expected to be less than one percent of the total number of permits issued per year. However, if the concessioner reserves permits in popular areas during popular times, such as major holiday periods, the already intense competition among other users for permits in these popular areas and times will increase. If that occurs, then the effect of the reduction will be greater than the total number of permits might indicate.

The concessioner will probably on occasion attract more clients for a particular advertised hike than its one advanced reservation per week would allow. In that case, the concessioner would be able to compete for additional permits for that hike because there would now be verifiable clients. The only limit to the number of permits commercial users can reserve if they have verifiable clients is the limit to all organizations of no more than 3 groups or 6 parties in the backcountry each night. Availability of permits for other users for popular hiking areas and times might be further impacted by this feature.

The concessioner would not have access to the Corridor Use Area for advance reservations without verifiable clients. For the Corridor, the concessioner would operate under provisions which have been in place since 1985 (i.e., competing for permits on the same basis as other users when the concessioner has verifiable clients). The demand for permits exceeds the supply during much of the year in Corridor campgrounds. The Proposed Action is expected to allow persons who desire commercial guided hiking services the opportunity to use such services in the Corridor (with the kind of facilities, level of difficulty, and experience it offers) without impacting the large number of other users who desire to hike overnight in the Corridor. For overnight guided hiking services, the purpose of the concession, as stated in the concession permit, is to provide guided hikes to more remote areas of the park, not to the Corridor.



## **2. Private Stock Use**

Since the Tonto Trail between the Bright Angel and the South Kaibab Trails was opened in 1986 to private stock for day use, about 20 private stock trips and 50 head of stock have taken advantage of this day trip opportunity. This loop day trip is shorter and less strenuous than a trip to the river, providing a more reasonable opportunity for a day ride below the rim.

This action may negatively impact the condition of the Tonto Trail in the following ways: increasing trail erosion and depth; increasing trail width; causing vegetation damage if stock are allowed to graze or if stock are tied to vegetation; causing soil and vegetation damage if stock are allowed to walk off the trail; causing pollution of water sources at Pipe Creek and Burro Spring; allowing stock waste and its associated impacts (insects, exotic plants, and aesthetics) into a new area; and changing the character and experience of that part of the trail for hikers. The park will continue the monitoring program initiated in 1987 measuring trail width/depth and vegetation damage. In addition, water quality will be monitored at least twice annually in this area, and a program will be developed to monitor potential changes to the character and experience of that part of the trail for hikers. Data from this program will be considered in evaluating future stock use on this section of trail. Significant impacts to wildlife are not expected based upon previous experiences with livestock use on the other Corridor trails. There is a substantial body of literature concerning impacts of stock use on backcountry trails. An ecological research program conducted in response to the 1983 Backcountry Management Plan stated that one of the main reasons contributing to the park's relatively good backcountry condition, as compared to many other backcountry areas, was the fact that stock use had been restricted to the Corridor.

Facilitating day use of the Tonto Trail will increase private stock use of the Bright Angel and South Kaibab Trails, increasing potential conflicts with concession and National Park Service stock on the trails. It will also increase stock waste and associated impacts on those trails.

The establishment of campsites for private stock users provides an opportunity for these users to camp with their stock in the park, facilitates an early start on the trail, and provides easy access to rim roads and trails open for stock use. Campsites also facilitate stock use in areas of the park where such use may now be infrequent. Stock impacts, such as soil and vegetation damage, stock waste (and insects and exotic plant introduction associated with that waste), will increase into new areas of the park due to campsite construction. The plan calls for construction or improvement of stock user campsites near the North Kaibab Trailhead, at Rowe Well Road and Pasture Wash on the South Rim, and at Cottonwood Camp in the canyon. An additional stock use campsite already exists near Bright Angel Campground. Potential impacts include: soil compaction, vegetation removal, litter, water, stock waste and associated impacts, and human waste. Exposure of concession and National Park Service stock to

diseases and other problems brought in by private stock in close proximity is also a concern. Site-specific environmental compliance documents will be completed prior to construction or improvement of any stock use campsites. Also, allowing private stock parties to camp in the vicinity of Bright Angel and Cottonwood Campgrounds is not intended to increase the use limits for those areas. The Backcountry Reservation System will be adjusted to ensure that stock parties count against the total number of parties and groups allowed by the use limits for those areas.

An additional inner canyon campsite at Cottonwood Camp will facilitate cross-canyon trips and rides off the North Rim for private stock users. This will increase stock impacts on the North Kaibab Trail between Roaring Springs and Phantom Ranch, including trail erosion, and flies at Cottonwood Campground and along the trail. This may also change hiker perceptions of the experience in that area, and cause conflicts between hikers and stock users (including complaints about stock waste on the trails) in that area.

Elimination of day use permit requirements will facilitate day use of trails for private stock users as they will not have to wait in line with hikers at the Backcountry Reservations Office for permits. It will also make the policy for stock users consistent with the policy for hikers, who do not need permits for day trips. Permits will be required for overnight use of stock user campsites, allowing monitoring of the amount of campsite use. However, because no permits are required for day use of stock, the park will no longer have accurate data on the number of private stock users taking day trips in the park. Even in the Tonto Trail area where stock users are required to register at the Indian Garden Ranger Station, data will not be as reliable as if permits were required.

Improperly handled stock can be hazardous to the safety of park users (including riders, hikers, and stock) and cause significant impacts to park resources. The Tonto Trail is not maintained to National Park Service standards for stock use, nor is that a management objective for that trail. Safety concerns and resource impacts may increase due to elimination of day use permit requirements. A brochure is being developed for private stock users describing the condition of the trail, proper trail etiquette, and safety techniques to attempt to mitigate these concerns. However, stock users are not required to obtain or read this brochure, or to follow its advice. Day users of stock are not required by the plan to contact any park employees prior to riding into the canyon. If safety or resource impacts occur, the park may reinstitute permit requirements for stock day use.

### **3. Trail and Backcountry Road Standards**

Standards for trail classification and maintenance are established in the 1988 plan, providing uniform criteria to determine need, extent, and type of trail maintenance. These standards are consistent with objectives for the different management zones, and will consider natural and cultural resource values and visitor experience on different trails. Action plans based upon the standards will help to establish priorities

and acceptable means for reacting to problems on backcountry trails. Previous trail maintenance outside the Corridor has been on a case-by-case basis without uniform criteria and standards. Trail maintenance and rehabilitation will be undertaken only to mitigate unacceptable impacts to natural and cultural resources on all but Corridor trails under the Proposed Action.

The character of each trail and route is to remain constant. Hikers will be able to better match their level of experience, expectations, and abilities to trail type which generally corresponds to management zones.

Road designations will reduce the number of backcountry roads and facilitate positive actions to close and rehabilitate undesirable roads. Resource damage from road proliferation will be reversed. Maintenance standards for backcountry roads will facilitate budgeting and priorities for maintaining vehicle access to trailheads and other appropriate destinations.

Site-specific environmental compliance documents will be completed before maintenance or rehabilitation will be undertaken on any trails, except the Bright Angel and Kaibab Trails, and on any backcountry roads. An environmental compliance document (with public review) will also be completed for road designations prior to implementation.

#### **4. Plan Review and Update**

Implementing the Proposed Action will facilitate management decisions by allowing adequate time to evaluate data from monitoring programs between plan revisions. The public will have access to the planning process through a continuously open comment period, as well as a formal public review process every three years. However, some persons may perceive that the proposed action reduces opportunities for public involvement in backcountry management compared to the formal annual review under the 1983 plan.

Changes to the plan which may occur without a formal public review process, if determined necessary before the normal three year review cycle, include minor revisions to use limits, Use Area boundaries, and permit procedures, and responses to resource impacts or visitor safety of an urgent nature. In all cases, appropriate environmental compliance will be completed before an action takes place, and any changes will be announced in a timely manner to all persons on the backcountry mailing list.

#### **5. Management Objectives**

Managing Use Areas for specific objectives with defined operating procedures will allow park staff to more easily identify and mitigate impacts to natural and cultural resources, visitors, and management. Recreational users of the backcountry will be able to make clear choices as to the type of backcountry experience desired and be reasonably assured that their expectations will be met. Overall, the objectives are

expected to reduce physical and sociological impacts of backcountry management policies.

Monitoring programs will be developed or modified to determine if the plan is accomplishing stated goals and objectives, and if not, why not. Specific mitigation actions to be taken if objectives are not met have not been included in the plan. It is anticipated that no actions will be taken based upon the management objectives until the next formal public review of the plan (1991) because it will take time to adequately evaluate the objectives and appropriate responses if they are not met. Existing monitoring programs which will be continued or modified include: campsite monitoring program; follow-up to the ecological and sociological research conducted in 1984-1986 to evaluate trends; water quality monitoring as specified in the park's Water Resources Management Plan; and cultural resource monitoring and protection. Detailed Backcountry Sign Guidelines will also be developed.

## **6. Backcountry Reservation and Permit System**

Numerous administrative problems associated with delivery of the after hours permits at the Bright Angel Lodge will be eliminated. Park backcountry staff will thus have more time to assist visitors and perform other duties. Approximately 20 hiking parties per year will be inconvenienced by not having after hours permits available to them. Expanding the mail out permit system will mitigate this concern for most users.

The expanded mail-out permit system will mean that experienced hikers using more remote areas of the park will not be inconvenienced by having to travel to the North or South Rim Backcountry Reservation Office for their permits. Hikers in the western Grand Canyon may still have difficulty planning their trips within the four week advance requirement for mail-out permits. If an agreement with the Bureau of Land Management in St. George and Kanab, Utah can be finalized to issue permits for selected areas of the park from those offices, most of the expressed concerns of hikers in the western Grand Canyon will have been mitigated. Hikers not meeting experience requirements at Grand Canyon to be eligible for the mail-out permit system will continue to be inconvenienced in having to pick up permits in person at a park office. However, this is considered desirable in that park rangers can insure the hiker is reasonably prepared and knowledgeable enough to successfully return from the hike without unacceptably impacting park resources.

The 1985 revision prevents one organization from dominating a campsite or Use Area on any one night. Limiting the number of groups also reduces resource damage, and negative impacts on individual hikers.

Releasing unreserved group permits thirty days before a trip date allows parties to compete equally with groups for available permits within thirty days of a planned hike. This change increases hiking options available to parties. It may also facilitate use of all available permits, increasing use and possibly also increasing impacts from backcountry use. Organized groups are not expected to be inconvenienced because they usually have their trips planned well in advance. Groups will continue to be able

to compete for reservations within thirty days of a hike. The Automated Backcountry Reservation System will facilitate this action.

## **7. Visitor Activity Restrictions**

The minor boundary area changes in 1985 made it easier for hikers to recognize and comply with Use Area boundaries. The new Use Areas in Marble Canyon and the Lava Use Area were created to more reasonably accommodate hikers in areas with physical barriers who would normally have no contact with each other. Potential use of these areas was doubled by splitting the old Use Areas. However, very few permits have traditionally been issued for these areas, so the actual increase in authorized overnight use for these areas is expected to be negligible. Some of these areas may experience substantial unauthorized overnight use. Actual use in these areas will be monitored through the Automated Backcountry Reservation System. If use begins to exceed historic use by more than 30%, other monitoring programs will target these areas to determine the effects and whether action should be considered during the next plan revision process.

Changes in use limits are proposed to meet management objectives for Use Areas within each management zone. This provides for a predictable hiking experience with minimal resource impact as defined by the management objectives. Changes for Fossil and Vishnu Use Areas were made to allow hikers the experience of no contact with another party or group. The use limit reduction at Cottonwood Campground is to reduce resource impacts and insure that the capacity for the composting toilets is not exceeded. The increase in use limit at Hermit Creek reduces the bottleneck effect in that area, and is consistent with objectives for the Threshold Management Zone. A site-specific environmental compliance document will be completed prior to construction and authorization of this new campsite. It is anticipated that campsite construction will occur before June, 1989. Several suitable locations exist for the additional campsite that would involve negligible impacts. Use limit reductions for the other Use Areas in Table I reduce resource impacts and increase the quality of experience consistent with objectives for the Primitive Management Zone.

## **8. Potential Cumulative Impacts**

When considered as a total plan, the 1988 Backcountry Management Plan reduces impacts of backcountry use on park resources and of backcountry management policies on visitors compared to the 1983 plan. There is a net potential for up to 48 additional persons to camp in the backcountry each night compared to the 1983 plan. Also, available permits may be more completely utilized by visitors due to changes in permit procedures and commercial use policy. In practice, annual overall use has been fairly stable for several years.

The new Automated Backcountry Reservations System will be able to keep better statistics on actual use for each Use Area. The plan allows for more consistent monitoring of natural and cultural resources through management objectives, trail standards, and monitoring programs. This should lead to better identification of

problems and more appropriate responses to them than was possible under the 1983 plan.

There will be increased options for backcountry use for all categories of backcountry users, and more consistent information about the types of backcountry experiences available in particular areas of the park. There is a potential reduction in availability of up to 52 permits per year for parties other than the park's guided hiking concessioner. Private stock users have greater access to the backcountry under this proposal. There may be some increase in conflicts between stock users and hikers, and an increase in stock impacts if stock use increases.

Management objectives are clearly defined. Many small administrative problems have been eliminated. The plan integrates overall goals and objectives for resource protection with day to day operating procedures for the implementation of the plan.

#### **IV. PERSONS AND AGENCIES CONSULTED**

Persons, Agencies and Organizations consulted include the following:

- Arizona Congressional Delegation
- Arizona Department of Environmental Quality
- Arizona Horseman's Association
- Arizona Mountaineering Club
- Arizona Wildlife Federation
- Bureau of Land Management
- Fred Harvey Company
- Friends of the River
- Grand Canyon Trail Guides
- Grand Canyon Trail Rides
- Grand Canyon Trust
- Havasupai Tribal Council
- Hopi Tribal Council
- Huachuca Hiking Club
- Hualapai Tribal Council
- Museum of Northern Arizona
- National Organization for River Sports
- National Parks and Conservation Association
- National Park Service
  - Grand Canyon National Park staff
  - Western Regional Office
  - Other NPS personnel in various parks and other offices
- Navajo Tribal Council
- Sierra Club
- Southern Arizona Hiking Club
- U.S. Forest Service

Wilderness Society

Other commercial hiking and river guide companies, members of the academic community, and numerous other individuals were also consulted through correspondence, telephone, and/or in-person contacts.